Requirements

Functional Requirements:

1. How long do we want out tiny url to be ( 7 or 9 characters)
2. Do we want to support custom url’s and length
3. Shorter url need to redirect to longer url
4. Should these expire or do we need to have a set timeout for these
5. Does this timeout apply for custom url’s
6. Is it read heavy or writ heavy

Non-Functional Requirements:

1. How many users will be interacting with this system
2. Shortened links should not be decodable
3. It should be highly available

Other Requirements:

1. Analytics, how many times accessed

API Routes and Methods

1. HTTPPOST: CreateURL (string longUrl, int expirationTime) 🡪 Return ShortUrl
2. HTTPGET: GetLongURL(string shortUrl) 🡪 307, redirection

Number of users

Define database models

Block Diagram

Detailed Design

Identify and Resolve bottlenecks